

JHARKHAND BIJLI VITRAN NIGAM LIMITED (JBVNL)

**Petition for True-up of FY
2020-21 based on Audited
accounts for 2020-21**



**JHARKHAND BIJLI VITRAN NIGAM
LIMITED**



Before the Hon'ble Jharkhand State Electricity Regulatory Commission, Ranchi

Filing Number: _____

Case Number: _____

IN THE MATTER OF: Filing of Petition for approval of True-up for FY 2020-21 based on audited accounts for FY 2020-21 as per the Regulations of Jharkhand State Electricity Regulatory Commission (JSERC) Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015 and JSERC Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020.

AND IN THE MATTER OF: Jharkhand Bijli Vitran Nigam Limited (hereinafter referred to as "JBVNL", or "erstwhile JSEB -Distribution function" which shall mean for the purpose of this Petition the "Licensee" or "Petitioner") having its registered office at HEC, Dhurwa, Ranchi

The Petitioner respectfully submits hereunder:

1. The erstwhile Jharkhand State Electricity Board ("Board" or "JSEB") was a statutory body constituted under Section 5 of the Electricity (Supply) Act, 1948 and was engaged in electricity generation, transmission, distribution and related activities in the State of Jharkhand.
2. Jharkhand Urja Vikas Nigam Ltd. (herein after to be referred to as "JUVNL" or "the Holding company") has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile Jharkhand State Electricity Board (herein after referred to as "JSEB"). The Petitioner submits that the said reorganization of the JSEB has been done by Government of Jharkhand pursuant to "Part XIII – Reorganization of Board" read with section 131 of the Electricity Act 2003. The Holding company has been incorporated on 16th September 2013 with the Registrar of Companies, Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 12th November 2013.
3. Jharkhand Bijli Vitran Nigam Ltd. (herein after to be referred to as "JBVNL" or "the Petitioner" or erstwhile "JSEB-Distribution function" has been incorporated on 23rd October 2013 with the Registrar of Companies,

Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 28th November 2013. The Petitioner is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014. The Distribution Company - Jharkhand Bijli Vitran Nigam Ltd. is duly registered with the Registrar of Companies, Ranchi on 23rd October 2013

4. The present Petition is being filed by JBVNL before the Hon'ble Commission for approval of Audited True-up for FY 2020-21 based on audited accounts for FY 2020-21 as per the Electricity Act, 2003 and as per the provisions of the Jharkhand State Electricity Regulatory Commission (JSERC) (Terms and Conditions For Determination of Distribution Tariff) Regulations, 2020 notified by the Hon'ble and JSERC (Terms and Conditions For Determination of Distribution Tariff) Regulations, 2015.

Jharkhand Bijli Vitran Nigam Limited
Petitioner

Ranchi

Dated:

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List of abbreviations

Abbreviation	Full Form
A&G	Administration & General
ABCIL	Aditya Birla Chemicals Indian Limited
Act	The Electricity Act, 2003
ADP	Annual Development Plan
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
APNRL	Adhunik Power & Natural Resources Limited
AT&C	Aggregate Technical & Commercial
Capex	Capital Expenditure
Commission	Jharkhand Electricity Regulatory Commission
Cr.	Crore
CS	Commercial Services
CWIP	Capital Work-In-Progress
DDUGJY	Deen Dayal Upadhyay Gram Jyoti Yojana
DPS	Delayed Payment Surcharge
DVC	Damodar Valley Corporation
EA 2003	The Electricity Act, 2003
EHT	Extra High Tension
FY	Financial Year
GFA	Gross Fixed Assets
GoJ	Government of Jharkhand
HT	High Tension
IEX	Indian Energy Exchange Limited
IPDS	Integrated Power Development Scheme
IPP	Independent Power Producer
ISTS	Inter-State Transmission System
JSBAY	Jharkhand Sampurna Bijli Achchhaadan Yojana
JSEB	Jharkhand State Electricity Board
KVA	Kilo Volt Ampere
kWh	Kilo Watt Hour
LT	Low Tension
MOD	Merit Order Dispatch
MU	Million Units
MW	Mega Watt
MYT	Multi-Year Tariff
NHPC	National Hydro Power Corporation
NTPC	National Thermal Power Corporation

Abbreviation	Full Form
NTI	Non-Tariff Income
NVVNL	NTPC Vidyut Vyapar Nigam Limited
O&M	Operation and Maintenance
PGCIL	Power Grid Corporation of India Ltd.
PLR	Prime Lending Rate
POSOCO	Power System Operation Corporation Limited
PoC	Point of Connection
PPA	Power Purchase Agreement
PTC	Power Trading Corporation
R&M	Repair and Maintenance
R-APDRP	Restructured Accelerated Power Development and Reforms Programme
RE	Renewable Energy
REC	Renewable Energy Certificate
RGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
RoE	Return on Equity
SBI	State Bank of India
SECI	Solar Energy Corporation of India
SERC	State Electricity Regulatory Commission
SHPS	Sikidri Hydro Power Station
T&D	Transmission & Distribution
TVNL	Tenughat Vidyut Nigam Limited
UDAY	Ujjwal Discom Assurance Yojana
UI	Unscheduled Interchange

1. Background and Procedural History

1.1. Background

- 1.1.1. Jharkhand Bijli Vitran Nigam Ltd. (herein after to be referred to as “JBVNL” or “the Petitioner” or “erstwhile JSEB-Distribution function) has been incorporated under Indian Companies Act, 1956 pursuant to decision of Government of Jharkhand to reorganize erstwhile Jharkhand State Electricity Board (herein after referred to as “JSEB”).
- 1.1.2. The Petitioner submits that the said reorganization of the JSEB has been done by Government of Jharkhand pursuant to “Part XIII – Reorganization of Board” read with section 131 of The Electricity Act 2003. The Petitioner is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014. The distribution company, Jharkhand Bijli Vitran Nigam Ltd has been incorporated on 23rd October 2013 with the Registrar of Companies, Jharkhand, Ranchi and has obtained Certificate of Commencement of Business on 28th November 2013.
- 1.1.3. The Petitioner is a Distribution Licensee under the provisions of the Electricity Act, 2003 (EA, 2003) having license to supply electricity in the State of Jharkhand. The Petitioner is functioning in accordance with the provisions envisaged in the Electricity Act, 2003 and is engaged, within the framework of the Electricity Act, 2003, in the business of Distribution of Electricity to its consumers situated over the entire State of Jharkhand.
- 1.1.4. Section 62 of the Electricity Act 2003 requires the licensee to furnish details as may be specified by the Commission for determination of tariff. In addition, as per the regulations issued by the Hon’ble Commission, JBVNL is required to file for all reasonable expenses, it believes it would incur over the next financial years forming part of MYT Control Period and seek the approval of the Hon’ble Commission for the same. The filing is to be done based on the projections of the expected revenue and costs, which should be arrived at by a reasonable methodology adopted by the Petitioner.

1.2. Distribution Tariff Regulations

- 1.2.1. The present Petition for Audited True-up for FY 2020-21 has been prepared in accordance with the following acts/policies/regulations:

- a) Electricity Act 2003
 - b) Provisions of National Electricity Policy;
 - c) Provisions of National Tariff Policy;
 - d) JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2015
 - e) JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2020
- 1.2.2. Further due to COVID-19, an extension in timeline for audit of balance sheet for FY 2020-21 has been provided for upto 31st December 2021. Accordingly, the Annual Accounts for FY 2020-21 of JBVNL was finalised in the month of February after the process of Statutory Audit. Hence, Hon'ble Commission is requested to accept the JBVNL revised Petition of Final True-up for FY 2020-21 on the basis of audited accounts for FY 2020-21.
- 1.2.3. It is submitted that the Petitioner is committed towards improving the electricity availability in the State, while achieving the operational turnaround for a sustained business model in future and lessen dependence on the State Government finances. A slew of measures is being undertaken and activities are being carried out at a considerable level to achieve the greater goal of becoming a sustainable power utility.

1.3. Tariff Order for FY 2020-21

- 1.3.1. The Petitioner had submitted its Petition for ARR and Tariff Petition for FY 2020-21 (including True-up for FY 2018-19 and APR for FY 2019-20) on 30th December 2019. In response to the same, the Hon'ble Commission has issued Order for True-up for FY 2018-19, APR for FY 2019-20 and ARR & Tariff for FY 2020-21 on 01st October 2020.

1.4. ARR and Tariff Petition for FY 2021-22 (including True-up for FY 2019-20 and APR for FY 2020-21)

- 1.4.1. The Petitioner had submitted its Business Plan Petition for the Control Period from FY 2021-22 to FY 2025-26, ARR and Tariff Petition for FY 2021-22 (including Audited True-up for FY 2019-20 and APR for FY 2020-21) on 30th November 2020.
- 1.4.2. Thereafter, the Petitioner has submitted the Audited True-up by the Statutory Auditor for FY 2019-20 under MYT Regulations, 2015 along with the prescribed tariff formats on 07th September 2021 along with first data gap/ deficiency reply submitted on the above mentioned petition dated 30th November 2020. However, the same is pending with the Hon'ble Commission.

2. True Up for FY 2020-21

2.1. Introduction

- 2.1.1. The Audited True-up for FY 2020-21 has been carried out on basis of audited annual accounts with consideration of:
- Clause 9.3 “Review during the Control Period” and Chapter A10: “Truing Up” of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015
 - Methodology adopted by the Hon’ble Commission in previous Tariff Orders
- 2.1.2. The Petitioner hereby submits the audited annual accounts for FY 2020-21 (submitted in **Annexure: 2**) for the consideration of Hon’ble Commission, based on which the Audited True up for FY 2020-21 has been prepared.

2.2. Energy Sales

- 2.2.1. The energy sales of JBVNL for FY 2020-21 based on the audited annual accounts is provided for the kind consideration of Hon’ble Commission. On overall basis, the intra-state energy sales for FY 2020-21 got decreased by 1,980.37 MU as compared to the energy sales approved by the Hon’ble Commission in its tariff order dated 01st Oct’ 2020 in ARR for FY 2020-21.
- 2.2.2. The following Table summarizes the consumer category-wise sales for FY 2020-21 for kind consideration of the Hon’ble Commission:

Table 2-1: Energy Sales (MUs) of JBVNL for FY 2020-21

Particulars	Approved (MUs)	Audited Claimed (MUs)
Domestic	5,886.49	4,905.24
Commercial/Non-Domestic	894.74	677.23
Public Lighting / SS	22.08	40.82
Irrigation / IAS	255.66	150.49
Industrial LT / LTIS/LTIS-D	249.30	197.67
Industrial HT / HTS / EHT	2,481.08	1,781.70
RTS/MES	104.44	160.25
Total Sales	9,893.78	7,913.41

- 2.2.3. The Hon’ble Commission is requested to approve the unit sales as submitted in the above Table.

2.3. Power Purchase Expense

- 2.3.1. It is submitted that JBVNL has firm allocations of power from central allocations like NTPC, NHPC, DVC and other sources such as DVC, PTC etc. In addition to these, JBVNL has also purchased power from private stations like APNRL, Inland Power, ABCIL, Rungta Mines and some quantum from renewable sources during FY 2020-21.

2.3.2. The following Table provides for station wise Power Purchase quantum and cost for FY 2020-21 as approved in ARR vide Order dated 01st October'2020 and based on Actual power purchase for FY 2020-21 of JBVNL.

Table 2-2: Power purchase quantum and cost for JBVNL for FY 2020-21

Particulars	Power Purchase Quantum		Power Purchase Cost	
	Approved (MUs)	Claimed (MUs)	Approved (Rs Cr.)	Claimed (Rs Cr.)
NTPC				
FARRAKA I&II	399.62	814.45	177.19	301.29
FARRAKA III	0.00	593.83	89.05	245.94
Kahalgaon I	465.74	162.56	153.77	54.93
Talcher	537.76	542.95	160.92	162.38
Kahalgaon STPS II	131.44	109.81	42.28	37.15
Barh-II	656.03	596.43	229.93	276.76
Korba	350.89	396.36	102.92	109.18
Barh-I	352.65		115.42	
Daripalli STPS	767.58	411.75	251.21	136.49
Nabinagar	341.85	150.82	114.15	69.82
North Karanpura	585.99		191.80	
Total	4,589.56	3,778.96	1,628.64	1,393.93
NHPC				
Rangit	58.23	53.89	17.12	19.87
Teesta	326.54	321.95	65.16	76.42
Total	384.77	375.84	82.28	96.29
PTC				
Chukha	171.15	222.91	41.10	53.53
Tala	306.25	388.67	66.15	83.96
Total	477.40	611.58	107.25	137.49
Total Central Sector	5,451.73	4,877.65	1,818.18	1,684.92
DVC	4,133.45	3,792.85	1,568.44	1,840.97
State Sector				
SHPS	48.16	49.98	18.03	10.63
TVNL	0.00	1,972.60	253.64	698.73
Total State Sector	48.16	2,022.58	271.67	709.26
Private				
Inland Power	409.77	364.48	166.28	177.45
APNRL-Unit I	0.00	452.74	50.92	164.35
APNRL-Unit II	0.00	452.74	51.65	163.66
APNRL Add 66 MW	0.00	486.46	50.15	187.55
Total Private	409.77	1756.42	319.90	693.01

Particulars	Power Purchase Quantum		Power Purchase Cost	
	Approved (MUs)	Claimed (MUs)	Approved (Rs Cr.)	Claimed (Rs Cr.)
Sector				
RE				
Solar IPPs	17.92	17.53	32.19	31.02
SECI Solar	505.10	15.09	136.73	9.31
SECI Wind	1,108.98	264.60	366.27	71.97
PTC Wind		487.33		172.03
Total RE	1,632.00	784.55	535.20	284.33
Rungta Mines	0.00	24.40	0.00	7.67
ABCIL	73.32	67.68	5.45	23.43
KANTI	0.00	111.26	24.69	57.20
PGCIL (Rs. Cr.)		0.00		254.46
Posoco (ERLDC)		0.00		0.95
Posoco (Railway)		0.00		0.00
ERLDC (APNRL)	-	0.00	-	30.48
UI Payable		82.39	-	39.94
UI Receivable		-112.81		-11.22
SER Deviation Receivable		0.00		-1.04
PTC (IEX) Purchase	-	283.83		105.21
PTC (IEX) Sale		-402.21		-97.90
Suppl. Bill/REA		-		27.58
Grand Total	11,748.83	13,177.34	4,542.63	5,592.13

2.3.3. JBVNL would like to submit that including Interstate Transmission charges, Hon'ble Commission in its Order dated 01.10.2020 had approved average power purchase cost (APPC) of Rs. 3.86/kWh in ARR for FY 2020-21. The lower power purchase was due to consideration of very low tariff from DVC (Rs. 3.79/kWh) and also due to non-consideration of power purchase from costlier power sources like NTPC Farakka III and Nabi Nagar. JBVNL would like to submit that owing to variation in its demand pattern it is also forced to offtake power from costlier sources like TVNL and Farakka III. However, at time of off-peak load it exercises Merit Order Despatch (MOD) and backs down costlier power plants. Further JBVNL has also filed Review Petition in Case No. 23 of 2020 regarding consideration of low power purchase cost from DVC in APR for FY 20-21 and ARR for FY 21-22.

2.3.4. JBVNL prays to the Hon'ble Commission to approve the power purchase as per the Actual data of FY 2020-21 as summarized in the Table above and approve the power purchase cost

accordingly.

2.4. Energy Balance

2.4.1. It is submitted that energy availability for FY 2020-21 has been computed based on the actual Power purchase and sales as per the audited annual accounts for FY 2020-21.

2.4.2. JBVNL would like to submit that power purchased from various sources has been segregated into different heads, while calculating the energy balance for the control period. The various sources are listed below:

- Power Purchase from Outside JSEB Boundary – i.e. Power sourced from NTPC, NHPC, PTC, APNRL, part of TVNL, NVVNL, SECI
- Energy Input Directly to State Transmission System - Input of power from TVNL through TVNL-PTPS directly to State Transmission System
- State-owned Generation- SHPS, Rungta Mines, ABCIL, Inland Power
- Direct Input of Energy to Distribution System- DVC and Solar IPPs.

2.4.3. It is submitted that the Petitioner has computed the energy requirement based on the below mentioned formulae:

$$\text{Energy requirement} = \text{Sales} / (1 - \text{Distribution loss})$$

2.4.4. Based on the information provided above, Energy Balance of JBVNL for FY 2020-21 is provided in the Table below:

Table 2-3: Energy Balance for JBVNL for FY 2020-21

Particulars	2020-21	
	Approved	Claimed
Power Purchase from Outside JSEB Boundary (MU)	7,016.78	7,913.56
Loss in External System (%)	3.00%	3.00%
Loss in External System (MU)	210.50	237.41
Net Outside Power Available (MU)	6,806.27	7,676.15
Energy Input Directly to State Transmission System (MU)	483.49	456.56
State-owned Generation (MU)	95.72	996.83
Energy Available for Onward Transmission (MU)	7,385.49	9,129.55
Transmission Loss (%)	2.23%	8.92%
Transmission Loss (MU)	164.70	813.99
Net Energy Sent to Distribution System (MU)	7,220.79	8,315.55
Direct Input of Energy to Distribution System (MU)	4,151.37	3,810.39
Total Energy Available for Sales (MU)	11,372.16	12,125.94
Energy Billed (MU)	9,893.78	7,913.41
Distribution Loss	13%	18%

- 2.4.5. JBVNL would like to submit that it has calculated transmission losses (Both inter and intra State) by subtracting total input energy received at 33 kV from total energy purchased from various power plants. JBVNL thereafter considers Inter-State Transmission Losses at 3% of all power purchase from external sources considering Point of Connection (PoC) withdrawal losses for Jharkhand and PoC injection losses of various power plants with which it has PPA. Thereafter, JBVNL segregates Intra-State Transmission Loss by subtracting Inter-State Transmission Charges from total Transmission losses.
- 2.4.6. The Hon'ble Commission has approved Distribution loss target of 13% for FY 2020-21. However, actual Distribution loss for FY 2020-21 is coming to be 34.97%. The Petitioner therefore prays to Hon'ble Commissioner to relax Distribution loss from 13% to 18% for FY 2020-21.
- 2.4.7. It may be seen that Intra-State Transmission Losses of JUSNL is at very high level as compared to approved value by Hon'ble Commission. This may be due to sub-optimal upkeep of transmission system by JUSNL. Hon'ble Commission is requested to direct JUSNL to improve its system including increase in voltage level to reduce losses.

2.5. Intra-State Transmission Charges

- 2.5.1. It is submitted that in its Order dated 01st October 2020, the Hon'ble Commission approved transmission charges payable to Jharkhand Urja Sanchar Nigam Limited (JUSNL) based on Tariffs approved during FY 2020-21 and the units transmitted as per the Energy Balance approved.
- 2.5.2. The actual Intra-state transmission charges payable to JUSNL for FY 2020-21 are provided in the Table below for kind consideration of Hon'ble Commission:

Table 2-4: Intra-state transmission charges of JBVNL for FY 2020-21

Particulars	Unit	Approved	Claimed
Transmission Charges	Rs. Crore	184.64	219.75

2.6. Operation and Maintenance Expenses

- 2.6.1. Operation and Maintenance Expenses (O&M expenses) comprises of Employee Expenses, Repair & Maintenance Expenses and Administrative & General Expenses.

Employee Expenses

- 2.6.2. Total Employee expenses comprise of Employee Cost (salaries, dearness allowance, bonus, leave encashment and staff welfare expenses) and terminal benefits in the form of pension & gratuity.
- 2.6.3. The employee cost for FY 2020-21 based on the audited annual accounts of FY 2020-21 is provided in the Table below for kind consideration of Hon'ble Commission:

Table 2-5: Employee cost of JBVNL for FY 2020-21

Particular	Approved	Audited claimed
Employee Cost Inc. Terminal Benefits (Rs. Crore)	321.77	271.13
Employee Expenses (Rs. Crore)	303.01	212.07
Terminal Benefit (Rs. Crore)	18.75	59.06

Repairs & Maintenance Expenses (R&M)

2.6.4. The revised R&M expenses for FY 2020-21 as per the Audited annual accounts of FY 2020-21 is provided in the Table below for kind consideration of Hon'ble Commission:

Table 2-6: Repair and Maintenance expense of JBVNL for FY 2020-21

Particulars	Approved	Audited claimed
R&M Expenses (Rs. Crore)	124.36	137.24

2.6.5. Therefore, it is prayed that the Hon'ble Commission may kindly approve the actual R&M expenses, as per the annual accounts of FY 2020-21.

Administrative and General Expense (A&G)

2.6.6. The revised A&G expenses for FY 2020-21 as per the Audited annual accounts of FY 2020-21 is provided in the Table below for kind consideration of Hon'ble Commission.

Table 2-7: A&G Expenses of JBVNL FY 2020-21

Particulars	Approved	Audited claimed
A&G Expenses (Rs. Crore)	110.83	95.99

2.7. Capital Expenditure Schedule

2.7.1. The Scheme-wise actual capex schedule for FY 2020-21 as per JBVNL Audited annual accounts of FY 2020-21 is detailed in the Table below:

Table 2-8: Capital Expenditure Schedule of JBVNL for FY 2020-21 (Rs. Crore)

Scheme wise	Approved	Claimed
DDUGJY	-	471.99
IPDS	-	180.05
RAPDRP – A	57.00	2.60
RAPDRP – B	-	344.96
DDUGJY 12 th Plan	-	253.64
ADP + Misc.	-	102.87
Tilka Manjhi & AGJY	-	19.48

Scheme wise	Approved	Claimed
RE State Plan	-	61.43
JSBAY - RE	3,975.56	836.19
RGVY (10 th & 11 th Plan)	-	16.46
Deposit & others		47.35
SAUBHAGYA	-	91.58
JSBAY – Urban Electrification	-	-
JSBAY – IT, SCADA & TRW	-	
IT Schemes (WB supported)	-	30.16
Total	4,032.56	2,458.76

- 2.7.2. It is submitted that capex of Rs. 2,458.76 crore has been incurred as against approved Capex of Rs. 4,032.56 Cr in FY 2020-21. This is testimony towards JBVNL success in implementing central and state government's scheme on the ground. This also substantiates JBVNL's claim in previous year's petition that the revision in capital expenditure is majorly due to timings of payments which are linked to completion of works under various schemes. The approved vs. actual capital works in progress are detailed below. It is also pertinent to mention that since implementation of large schemes such as Jharkhand Sampurna Bijli Achyadan Yojna (JSBAY) was started in 2018 itself, a significant work was completed in FY 2020-21. The details are depicted in the Table below:

Table 2-9: Actual Capital work in progress of JBVNL for FY 2020-21 (Rs. Crore)

Particulars	Approved	Claimed
Opening CWIP	5,374.04	6,375.44
Capex during the year	4,032.56	2,458.76
Transfer to GFA	2,931.41	3,107.52
Closing CWIP	6,475.19	5,726.68

- 2.7.3. The additions in GFA are created from various source of financing including Debt, Equity (D&E), Consumer Contribution and Grants (CCG) etc. The CCG has been considered based on actual, however the Debt and Equity are estimated based on norms and principles adopted by Hon'ble Commission in its earlier orders.
- 2.7.4. The CCG of JBVNL, based on the annual accounts for FY 2020-21 vis-à-vis as approved by the Hon'ble Commission is provided in the Table below.

Table 2-10: Consumer contribution and grants of JBVNL for FY 2020-21

Particulars	Approved (Rs. Crore)	Claimed (Rs. Crore)
CCG Opening	8,199.42	7,614.15
Addition in CCG	4,315.58	396.24
Closing CCG	12,515.00	8,010.39

2.8. Calculation of Normative GFA, Loan and Equity

- 2.8.1. The Petitioner has calculated Normative GFA from Debt & Equity, Loan and Equity as per approach adopted by Hon'ble Commission in its previous Tariff Orders.
- 2.8.2. The Petitioner has bifurcated GFA and Accelerated Depreciation into component from Debt & Equity (D&E) and from CCG as per approach by Hon'ble Commission followed in previous Tariff Orders. The Petitioner has thereafter applied the normative debt-equity ratio of 70:30 on GFA out of D&E to calculate Normative Equity as per Claus 6.16 of JSERC Distribution Tariff Regulation, 2015.
- 2.8.3. After netting Normative Equity from closing GFA (out of D&E), the Petitioner has deducted, accumulated depreciation pertaining to D&E component from the resultant to arrive at normative closing debt.
- 2.8.4. The calculation of Normative Debt and Equity is Tabulated below:

Table 2-11: Source of Funding of GFA for FY 2020-21 (Rs. Crore)

Particulars	Approved (Rs. Crore)	Claimed (Rs. Crore)
Opening GFA (A)	12,678.19	13,768.59
CCG towards Opening CWIP (B)	2,440.92	2,409.82
CCG towards Opening GFA (C)	5,758.50	5,204.33
Opening GFA Less CCG (D = A - C)	6,919.69	8,564.26
Closing GFA (E)	15,609.60	16,876.11
CCG towards Closing GFA (F)	8,845.64	5,980.86
Closing GFA Out of D&E (G= E-F)	6,919.69	10,895.24
Accumulated Depreciation (H)	3,481.22	4,654.46
Accumulated Depreciation Out of D&E (I =H*G/E)	1,543.21	3,004.93
Closing Normative Equity (J = G* 30%)	2075.91	3268.57
Closing Normative Loan (K = G-J)	4,843.78	7,626.67

2.9. Depreciation

- 2.9.1. The Petitioner has first arrived at the opening and closing GFA of FY 2020-21, created out of debt and equity (D&E), by deducting CCG portion deployed towards opening and closing GFA. The Petitioner has applied the depreciation rate as approved by the Hon'ble Commission on the average GFA and accordingly calculations are made to arrive at the total depreciation being claimed as part of the true-up exercise.
- 2.9.2. The depreciation calculated by the Petitioner based on the Hon'ble Commissions approach in Tariff Order for FY 2020-21 for JBVNL dated 01st October 2020 vis-à-vis as approved by the Hon'ble Commission is provided in the Table below:

Table 2-12: Financing of the Capital Investments in FY 2020-21 (Rs. Crore)

Particulars	Approved (Rs. Crore)	Claimed (Rs. Crore)
Opening GFA (Less CCG) (Rs. Cr.)	6,919.69	8,564.26
Closing GFA (Less CCG) (Rs. Cr.)	6,919.69	10,895.24
Average GFA excluding Consumer Contributions and Grants (Rs. Cr.)	6,919.69	9,729.75
Depreciation Rate (%)	5.94%	5.94%
Depreciation Cost (Rs. Cr.)	411.03	577.95

2.10. Interest & Finance Charges

Interest on Long Term Loan

- 2.10.1. The opening debt for FY 2020-21 has been considered equal to closing value of FY 2019-20, also the same has been claimed in the revised True-up petition for FY 2019-20 of JBVNL dated 07th September 2021.
- 2.10.2. Closing debt for FY 2020-21 has been calculated above in above Table: 2-11 in line with the Regulation 6.16 of the JSERC Tariff Regulations, 2015.
- 2.10.3. In line with the Regulation 6.22 of the JSERC Tariff Regulations, 2015 repayment of loan for FY 2020-21 has been considered equal to Depreciation as calculated above.
- 2.10.4. Further, the rate of interest on long-term loan has been considered at the Base rate of SBI as applicable on April 1st of FY 2020-21 plus 200 basis points as per Regulation 6.24 of the JSERC Distribution Tariff Regulations, 2015. Interest cost thus calculated vis-à-vis as approved by the Hon'ble Commission is provided in the Table below:

Table 2-13: Allowable Interest & finance charges of JBVNL for FY 2020-21 (Rs. Crore)

Particulars	Approved	Claimed
Opening Balance	3,168.09	3,778.20
Deemed Addition during the year	543.51	1,421.50
Deemed Repayments during the year	411.03	577.95
Closing Balance	3,300.57	4,621.75
Average balance during the Year	3,234.33	4,199.97
Interest Rate	10.15%	10.15%
Interest Expense	328.28	426.30

- 2.10.5. It is requested that the Hon'ble Commission may approve the interest and finance charges as submitted by the Petitioner.

Interest on Consumer Security Deposits

- 2.10.6. The Interest on consumer deposit for FY 2020-21 has been computed based on the actual interest on consumer deposit as per annual accounts for FY 2020-21.

Table 2-14: Interest on consumer deposit of JBVNL for FY 2020-21 (Rs. Crore)

Particulars	Approved	Audited claimed
Consumer Deposit	686.62	655.72
Interest Rate	8.15%	8.15%
Interest on Consumer Security Deposit	55.96	53.44

Bank and Finance Charges

- 2.10.7. The Petitioner humbly submits that has incurred Bank and Finance charges to the tune of Rs. 0.05 Crore as per audited annual accounts for FY 2020-21 towards expenditures like Bank charges, finance charges, etc. The Petitioner requests the Hon'ble commission to approve the same.
- 2.10.8. The following Table summarizes the Interest and Finance charges claimed by the Petitioner as against those approved by the Hon'ble Commission in the Tariff Order for FY 2020-21.

Table 2-15: Interest and Finance Charges for FY 2020-21 (Rs. Crore)

Particulars	Approved	Claimed
A: Interest on Long Term Loans		
Interest Expenses	328.28	426.30
B: Finance and Other Charges		
Interest on Consumer Security Deposits	55.96	53.44
Bank/ Finance Charges	-	0.05
Total Finance Charges	55.96	53.49
Total (A+B)	384.24	479.79

2.11. Interest on Working Capital

- 2.11.1. The Petitioner has calculated normative working capital requirement for FY 2020-21 in line with the Regulation 6.29 and 6.30 of the JSERC Tariff Regulations, 2015.
- 2.11.2. Rate of Interest on Working Capital (IoWC) has been considered to be equal to the Base Rate of SBI as applicable on the 1st April of the respective year plus 350 Basis Points as per Regulation 6.31 of the JSERC Distribution Tariff Regulations, 2015.
- 2.11.3. The Petitioner has estimated the working capital requirement and interest thereof, as provided in the Table below:

Table 2-16: Interest on Working Capital of JBVNL for FY 2020-21 (Rs. Crore)

Particulars	Approved	Clamed
O&M expenses for 1 month	46.41	42.03
Maintenance Spares (1% of GFA)	69.20	85.64
2 months Receivables	1,054.33	1,097.03
Less: 1 month cost of power purchase	406.83	361.69

Particulars	Approved	Claimed
Less: Security Deposit from Customers	686.62	655.72
Total Working Capital requirement	76.50	207.29
Interest rate on WC	11.65%	11.65%
Interest on Working Capital	8.91	24.15

2.12. Return on Equity

- 2.12.1. The Petitioner has considered the opening balance of normative equity for 2020-21 as per the closing balance for the FY 2019-20, as claimed in the revised True-up petition for FY 2019-20 in dated 07th September 2021.
- 2.12.2. Closing equity for FY 2020-21 has been calculated using normative debt equity ratio (70:30) as calculated above in Table: 2-11, as per the provisions of Regulation 6.16 of JSERC Distribution Tariff Regulations, 2015.
- 2.12.3. Further, the rate of Return on Equity (RoE) is considered to be 15.50% as per the provisions of Regulation 6.17 of JSERC Distribution Tariff Regulations, 2015.
- 2.12.4. The return on equity is provided in the Table below for kind consideration of Hon'ble Commission:

Table 2-17: Return on Equity RoE for FY 2020-21 (Rs. Crore)

Particulars	Approved	Claimed
Opening Balance of Normative Equity	2,075.91	2,569.28
Deemed Additions	0.00	699.30
Closing Balance of Normative Equity	2,075.91	3,268.57
Average Equity	2,075.91	2,918.93
Return on Equity (%)	15.50%	15.50%
Return on Equity	321.77	452.43

2.13. Revenue from Sale of Power

- 2.13.1. The Hon'ble Commission had projected revenue from sale of power to Rs. 6,463.48 Crore in ARR Tariff Order for FY 2020-21 dated 01st October 2020. The Audited Annual Accounts have reported the revenue from sale of power to be Rs. 4,624.58 Crore towards electricity sales of 7,913.41 MU. The Petitioner requests the Hon'ble Commission to approve the same.

2.14. Non-Tariff Income

- 2.14.1. The Non-Tariff Income (Other Income) of JBVNL for FY 2020-21, based on the audited annual accounts has been provided for the kind consideration of Hon'ble Commission.
- 2.14.2. However, while computing the Non-Tariff income (Other Income) of JBVNL for FY 2020-21, the financing cost for corresponding receivables has to be reduced as accrued DPS is considered as NTI. It is pertinent to mention that the Petitioner has already incurred power purchase costs on such outstanding receivables and DPS is levied as financing cost of such receivables. However, the Petitioner is allowed only 2 months of receivables in allowance of working capital. For the receivables beyond the period DPS is applicable and as DPS is

considered to be additional income for the Petitioner financing cost of such receivables are allowed in line with the judgement of Hon'ble APTEL dated 12.07.2011 in case No. 142 & 147 of 2009.

- 2.14.3. The Hon'ble Commission in its Tariff order for Aggregate Revenue Requirement for MYT Period FY 2016-17 to FY 2020-21 and Tariff Order for FY 2019-20 dated 28th February, 2019 for JBVNL has also considered the above approach in line with the judgement of Hon'ble APTEL in Appeal no. 48 of 2016 and Appeal no.316 of 2016 & IA no.656 of 2016 dated 31st May, 2017, while approving the Non-Tariff income.
- 2.14.4. The Petitioner humbly prays to the Hon'ble Commission to approve the Non-tariff income for FY 2020-21 as outlined below:

Table 2-18: Non-tariff income of JBVNL for FY 2020-21 (Rs. Crore)

Non-Tariff Income	FY 2020-21	
	Approved	Audited claimed
Interest Income from Investment in Fixed Deposits	11.33	8.98
D.P.S from Consumer	442.80	506.95
Interest from Bank (Other than FD)	13.20	6.92
Income from Staff Welfare activities	-	0.00
Supervision Charges	2.15	4.48
Miscellaneous Receipt	10.55	5.57
Meter Rent	32.86	36.20
Receipt from Consumers for capital works	18.06	30.00
Miscellaneous Charges from Consumers	1.92	0.05
Total	532.87	599.13
Interest rate for Receivables financing	11.95%	11.65%
Corresponding Receivables against DPS	2,460.01	2,816.37
Less: Interest on Receivables against DPS	293.97	328.11
Net NTI to be considered	238.90	271.02

2.15. Disallowance on account of AT&C losses

- 2.15.1. JBVNL has undertaken several administrative measures to curb the AT&C losses along with the technical measures such as metering of un-metered consumers, focusing on billing efficiency and collection efficiency improvement through appointment of dedicated agencies. However, due to challenging circumstances in Jharkhand including, topographical issues, economic disparity, law & order aspects etc. it has not been able to achieve performance level specified by Hon'ble Commission.
- 2.15.2. The target of 100% of collection efficiency set by Hon'ble Commission is highly impracticable and even the most efficient utilities in the Country are not able to achieve the 100% collection efficiency. The Petitioner humbly submits that it has introduced several avenues for payment of bills by the consumers, to enhance the collections which includes:
- Payment by credit/ debit card through Mobile App (ezy-bzly),
 - Online web-based payment facility on JBVNL's website
 - Payment through Bharat Bill Payment System (BBPS)
 - POS machine and E-wallet facility through Urja Mitras

- Collection through ~ 440 Post Offices
- Collection through ~ 190 Any Time Payment (ATP) machines

2.15.3. One of the key reasons behind the lower than targeted collection efficiency is the addition of large number of rural consumers during FY 2018-19 under SAUBHAGYA and DDUGJY 12th Plan Scheme. The newly added consumers are from remote parts of state and have poor paying capacity due to limited income. In order to complete the mandate of universal electrification, JBVNL is supplying electricity to them. Percent of receipt generated to such rural domestic consumers as number of bills issued is less than 10%.

2.16. Impact on Sales due to Lockdown to curb Covid-19

- 2.16.1. In addition, Considering the impact due to the pandemic of COVID-19 and recent lockdowns, the demand scenario of not only the State, but whole Country is very uncertain and unstable. The commercial, institutional and industrial categories demand has plummeted on account of lockdown restrictions, while domestic demand has increased due to people staying back at home. This has resulted in major reduction in load and also in the consumption mix for the Discoms. Further, with large scale movement of the migrant labour population back to their native villages and large-scale income/ job loss, the economy is expected to come back on track gradually. In view of these developments and uncertain situations, the Petitioner's billing and collection efficiency got affected for FY 2020-21 and also for FY 2021-22. Accordingly, the Hon'ble Commission is requested to consider the impact of COVID-19 pandemic for FY 2020-21 and FY 2021-22 while allowing and approving the billing and collection efficiency targets for the Petitioner.
- 2.16.2. It is observed that the impact on LT & HT consumer sales and revenue during Lockdown/ Partial Lockdown in the month of April 2020 to July 2020 was highest.
- 2.16.3. In such a scenario it is impossible to achieve collection efficiency of 100% as mandated by Hon'ble Commission. Thus, the Hon'ble Commission is requested to approve the actual collection efficiency as submitted in the Table below.
- 2.16.4. The Petitioner prays to Hon'ble Commission that the amount of revenue which JBVNL has not been able to collect, may be allowed to be considered against the RGF received during FY 2020-21. The calculation for disallowance is done by considering the difference between the Commissions approved collection efficiency i.e. 100% and the actual collection efficiency of 90.92% in FY 2020-21. The details of the same have been provided in the Table below. The Petitioner humbly submits that the disallowance on account of Lower Collection efficiency shall be considered while adjusting RGF from ARR.

Table 2-19: Disallowance on account of Collection efficiency of JBVNL for FY 2020-21

Particulars	FY 2020-21	
	Approved (Rs Cr.)	Audited claimed (Rs Cr.)
Revenue from sale of power	6,463.48	4,624.58
Collection efficiency		90.92%
Uncollected revenue – to be adjusted against RGF		419.91

- 2.16.5. Further, the Hon'ble Commission has approved Distribution loss target of 13% for FY 2020-21. However, actual Distribution loss for FY 2020-21 is coming to be 34.97%. Non-achievement of the loss target despite best efforts by the Petitioner is again due to addition of high number of rural domestic consumers. The Petitioner therefore prays to Hon'ble Commissioner to relax Distribution loss from 13% to 18% for FY 2020-21. The Petitioner has estimated the disincentive for non-achievement of loss targets and has subtracted the same from power purchase expenditure for FY 2020-21, considering the methodology adopted by Hon'ble Commission previously. The excess cost to be disallowed is the 'Disincentive for non-achievement of Distribution loss targets', which needs to be appropriately adjusted against the Resource Gap Funding (RGF) is provided in Table below:

Table 2-20: Disallowance on account of Distribution loss

Particulars	Audited
Total Energy Sales to Intrastate consumers (MU)	7,913.41
Overall Distribution loss (%) for intra-state consumers	34.97%
Total Energy requirement for intra- state consumers (MU)	12,125.94
Energy Available for Distribution (@18% Dist. Loss) (MU)	9,650.49
Disallowed Units due to Excess Loss (MU)	2,475.45
Average Power Purchase Cost (Rs. / Unit)	4.03
Disallowed Cost due to Excess Loss (Rs. Crore)	997.36

- 2.16.6. The disallowed power purchase cost of Rs. 997.36 Cr. has been deducted from power procurement cost as calculated in Table: 2.2 and resultant power procurement cost comes to be Rs. 4,340.31 Crore.
- 2.16.7. Further, it is humbly requested to the Hon'ble Commission that in view of the Covid-19 pandemic the disallowance shown above in Table should be pass through as the licensee were unable to do the Metering, Billing, collection and Vigilance activities during the period of 4-5 months, which impacted the Distribution loss, Billing & Collection efficiency and ultimately the financial health of the Discom badly.
- 2.16.8. It is also quite pertinent to mention here that the Hon'ble Commission in its Order dated 21st September 2020 in Case No. (Suo Moto) 15 of 2020 has directed Discoms to separately account for the financial impact in respective category of consumers, arising out of this order in their annual account and submit the same at the time of submission of APR of FY 2020-21. Hon'ble Commission in its Order also clarified that all costs incurred due to any waiver, remission, and moratorium shall necessarily be passed on to beneficiary consumer category, equivalent to the cost incurred by the Licensee. The Petitioner has calculated that it has incurred Rs. 87 crore for giving relaxation to consumers as per above-mentioned Order of Hon'ble Commission in FY 2020-21. That will lead to the reduction of revenue in the FY 2020-21 and ultimately increased the revenue gap for the year. The Consumer category-wise breakup of waiver of Fixed charge & DPS is tabulated below:

Table 2-21: Disallowance on account of Distribution loss (Crs)

Category	Fixed Charge Waiver	DPS Waiver	Total
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Category	Fixed Charge Waiver	DPS Waiver	Total
DS-Rural	-	1.78	1.78
DS-Urban	-	2.85	2.85
Commercial (Rural)	-	0.03	0.03
Commercial (Urban)	0.81	0.78	1.58
IAS	-	0.03	0.03
LTIS	7.78	0.49	8.27
SS	-	0.06	0.06
HT	65.52	6.59	72.11
HT (Institutional)	-	0.05	0.05
DS-HT	-	0.07	0.07
Total	74.11	12.74	86.85

2.17. Resource Gap Funding

2.17.1. The Petitioner would like to submit that resource gap funding is being provided by Government of Jharkhand to meet the disallowances and slashes made by the Hon'ble Commission during tariff determination process for various parameters such as higher T&D Loss, normative interest computation, normative generation cost etc.

2.17.2. A communication from the Energy department, Government of Jharkhand was also submitted vide letter dated 14th July 2014 stating that:

“Amount released towards resource gap may be utilized to meet the slashes/disallowances worked out by the Hon'ble commission while fixing the tariff”

2.17.3. In line with the above communication by the GOJ, the Petitioner prays that the Hon'ble Commission should consider adjusting the complete RGF towards disallowance/ slashes and remaining amount of RGF may be considered to meet the revenue gap. The resource gap funding available to meet revenue gap is provided below:

Table 2-22: Resource gap funding received by JBVNL for FY 2020-21

Particulars	Claimed (Rs. Cr)
Resource Gap Funding Received	0.00
Disallowances – on account of Dist. losses/(Efficiency Gain)	997.36
Disallowances – on account of Collection Efficiency	419.91
Net Resource Gap Funding available to meet revenue gap	(1,417.27)

2.17.4. Hence, Hon'ble Commission is requested to approve the revenue gap for FY 2020-21.

2.18. Aggregate Revenue Requirement (ARR) for FY 2020-21 after Audited Truing Up

2.18.1. The Aggregate Revenue Requirement for FY 2020-21 after Audited truing up is summarised in the Table below:

Table 2-23: Aggregate Revenue Requirement (ARR) for FY 2020-21 (Rs. Crore)

Sr. No.	Particular	FY 2020-21	
		Approved	Claimed
1	Power Purchase cost (including disallowance on account of distribution loss and collection efficiency)	4,542.63	5,757.58
2	Transmission charges (Inter and Intra State)	339.37	474.21
3	O&M expenses	556.96	504.37
4	Depreciation	411.03	577.95
5	Interest on Long Term Loan	328.28	426.30
6	Interest on Working Capital Loan	8.91	24.15
7	Interest on Consumer Security Deposit	55.96	53.44
8	Bank/ Finance Charges	-	0.05
9	Return on Equity Capital	321.77	452.43
10	Less: Non-Tariff Income	238.90	271.02
11	Annual Revenue Requirement	6,326.00	7,999.45
12	Revenue from Intrastate sales / Sale of Power	6,463.48	4,624.58
13	Net Gap/ (Surplus)	(137.48)	3,374.88

Annexure 2: Audited annual accounts for FY 2020-21 (attached as a separate pdf file to this petition)